

REMARKS

The application has been reviewed in light of the Office Action dated September 7, 2004. Claims 117, 118 and 139-151 are pending, with claims 117, 118 and 144-151 having been withdrawn by the Patent Office from consideration. Claims 1-116 and 119-138 were previously canceled, without prejudice or disclaimer. By this Amendment, claim 139 has been amended to clarify the claimed invention, and claim 142 has been canceled, without prejudice or disclaimer. It is submitted that no new matter has been introduced by the present amendment. Accordingly, claims 139-141 and 143 are presented for examination, with claims 1, 8, 35-38 and 50 being in independent form.

Claims 139-141 and 143 were rejected under 35 U.S.C. § 102(e) as purportedly anticipated by U.S. Patent No. 5,915,154 to Schoch et al. Claim 142 was rejected under 35 U.S.C. § 102(b) as purportedly anticipated by Japanese patent application Publication No. 6-175490 (Yabaneta).

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claim 139, as amended, is patentable over the cited art, for at least the following reasons.

This application relates to toner delivery in an image forming system. Applicant devised a system wherein toner is drawn from a toner container by suction with a suction pump. Applicant also recognized, however, that toner delivery can be accomplished expeditiously and efficiently if the suction pump sucks the toner from the toner container downward in a direction of gravity, thereby minimizing the amount of power expended by the suction pump required to draw the toner from the container.

For example, independent claim 139 is directed to an image forming system using a toner container including a toner outlet, wherein the image forming system comprises a developing section and a suction pump, and toner dispensed through the toner outlet of the toner container is drawn by the suction pump to the developing section, and the suction pump sucks the toner from the toner container downward in a direction of gravity.

Schoch, as understood by Applicant, is directed to an apparatus for conveying toner material from a reservoir. The apparatus includes a suction/pressure unit which projects from above into the reservoir. A gas is introduced into the suction/pressure unit and is mixed with finely powdered material that is sucked into the suction/pressure unit from the reservoir below the suction/pressure unit, to form a powder-gas mixture. The mixture is discharged.

However, as shown in Figs. 1-3 of Schoch, suction is hindered by the weight of the toner, and greater suction is required (and therefore, extra energy must unnecessarily be consumed) as compared to the claimed invention wherein the suction pump sucks toner from the toner container downward in a direction of gravity.

Yabaneta, as understood by Applicant, is directed to an image forming device which comprises a toner sucking and supplying device 12 interposed between a toner container 11 and a toner hopper part 6 of a developing device. The device 12 generates an airflow from the toner container 11 toward the toner hopper part 6 which carries the toner to the toner hopper part 6.

However, in Yabaneta, the toner is conveyed from the toner container through a pipe or discharge start position 17 in the horizontal position. This horizontal discharge also hinders conveyance of toner because the weight of toner, acting on the inner surface of pipe 17, generates a friction force.

Applicant does not find disclosure or suggestion by the cited art, however, of an image forming system wherein a suction pump sucks toner dispensed through the toner outlet of the toner container downward in a direction of gravity to the developing section, as provided by independent claim 139 as amended.

Since the cited art does not disclose or suggest each and every feature of the claimed invention, the cited art does not render the claimed invention unpatentable.

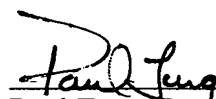
Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claim 139 and the claims depending therefrom are patentable over the cited art.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,



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